SCABIES

Infection Control Guidelines for Long-Term Care Facilities

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Division of Epidemiology and Immunization
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Scabies is an infestation of the skin caused by a mite, *Sarcoptes scabiei*. Scabies mites are transferred by direct skin-to-skin contact. Indirect transfer from clothing or bedding can occur only if these have been contaminated by infested people immediately beforehand. Scabies can affect people without regard to age, sex, race or standards of personal hygiene. The most prominent symptom of scabies is intense itching, particularly at night. The itching is caused by reaction to the scabies mites as they burrow under the top layer of skin to feed and lay eggs. Symptoms will appear two to six weeks after contact in people who have never had scabies before. People who have had scabies mites before may show symptoms within one to four days after getting them again, since they have already been sensitized to the mites.

A more severe form of scabies (caused by the same mite) is called "Norwegian scabies"; it is characterized by vesicles and formation of thick crusts over the skin, accompanied by abundant mites, but only slight itching. People with weakened immune systems, the elderly, and people who do not have itchiness from scabies are more likely to get Norwegian scabies. People with Norwegian scabies are more likely to transmit mites because of the large number of mites that they carry, and the widespread contamination of bedding, clothing and other objects they contact.

Complications due to scabies or Norwegian scabies infestations are usually caused by secondary bacterial infections from scratching. Early recognition and rapid treatment are essential in preventing outbreaks of scabies.

Infestation with scabies is not grounds for denial of admission to a long-term care facility.

Infectious Agent: *Sarcoptes scabiei*

Reservoir: Humans

Mode of Transmission: Mites can be transmitted through direct skin-to-skin contact with a person who is infested with the mites or through the clothes or bedding of an infested person. Scabies can be spread in households and through sexual contact. Mites can burrow under the skin in several minutes. Transmission can occur until all the mites and eggs are destroyed by treatment.

Incubation Period: The incubation period for scabies is two to six weeks in individuals without previous exposure. Individuals who have been previously infested may develop symptoms within 1-4 days after re-exposure.

Diagnosis: The diagnosis of scabies can be confirmed by examination of skin scrapings. The scabies mite tends to burrow in the interdigital folds, flexor aspects of the wrists, extensor surfaces of the elbows, axillary folds, belt line, navel, abdomen, intergluteal cleft and buttocks. The average individual with scabies may have only 10 to 15 mites, thus making diagnosis difficult.

Treatment: Effective treatment of scabies requires the application of a safe, effective scabicide. The currently recommended treatment of choice is the topical use of 5% permethrin cream (Elimite). Apply a thin layer of the cream over the whole body from the neck down, paying particular attention to folds in the skin. Trim fingernails and toenails, and apply the cream under the nails. Reapply the cream to the hands after handwashing. After 8 to 14 hours, wash the cream off with warm, soapy water and then dry the skin.

Alternate drugs are 10% crotamiton, ivermectin, or 1% lindane cream or lotion (Kwell), all of which should be used with extreme caution. Ivermectin is an oral medication that is not yet approved for this indication by the FDA. It should be considered for patients who cannot tolerate topical therapy. Crotamiton is associated with frequent treatment failures. Lindane is contraindicated in patients with crusted scabies, people with a known seizure disorder and patients who have extensive dermatitis. It should be reserved for people who fail to respond to other treatments.

Treatment details vary with the medication used; therefore, the manufacturer's labels or the prescriber's directions should be followed for whatever treatment option is chosen.

Control:

Single cases
For single cases among residents, contact precautions in addition to standard precautions, are recommended until 24 hours after treatment with an appropriate scabicide. Similarly, caregivers diagnosed with scabies should not return to work until 24 hours after treatment and should also speak with their health care provider about simultaneous prophylactic treatment of their household contacts.

Surveillance for additional cases should be undertaken among caregivers and contacts of the case, including family members and regular visitors. Cases should be re-examined on days 14 and 28 post-treatment, however, itching may not subside for several weeks despite successful treatment.

All bedding, clothing, and towels that have come in contact with the infested person's skin in the 2-3 days prior to treatment should be machine washed with detergent in hot water (140°F) and dried in a hot air dryer for 20 minutes. Scabies mites do not survive more than 2 to 3 days without contact with skin. Objects that cannot be washed can be placed in plastic bags for 14 days to eliminate eggs as well as mites. Carpets, furniture, and mattresses that have been in contact with cases should be vacuumed. Fumigation is NOT necessary.

Outbreaks
If multiple cases are occurring in your facility, or there is evidence of transmission among residents, staff and/or visitors, more extensive control measures will be required. In outbreak situations, in addition to the recommendations for single cases described above, consider treating all patients and caregivers (both symptomatic and asymptomatic) on affected units simultaneously. Expand surveillance to the entire facility. Educate caregivers on the symptoms, prevention, and control of scabies. Suspend staff floating. Treat symptomatic employees on unaffected units and look for spread of skin lesions on that unit.

Outbreaks should be reported to the Division of Health Care Quality at (617) 753-8150 during normal business hours and (617) 363-0755 after normal business hours. For further information or assistance with control measures, call the Division of Epidemiology and Immunization at (617) 983-6800.

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